take the same shape, as do also the very clusters or bunches of stamens. We have observed that the cones are often types of the particular species of tree on which they grow. The cone of the pine, indeed, may furnish an attractive study to the reflecting observer for hours. Looking at the arrangement of the scales., he may follow one set of regular spirals, proceeding from right to left, and another set proceeding from left to right. These, by their intersection, give a series of beautiful rhomboids on the surface of the cone, and if lie measure the angles of these figures, he will find them approximately 120° above and below, and GO° at the sides. Turning now to the branches, ho will find the scars of the fallen leaves also forming two sets of spirals, and these, by their intersection, also giving a series of regular rhomboids. It is a property of these spirals and rhomboids, that from whatever point we view them they carry on the eye, and show us a regularity of figure, while yet there is no wearisome sameness.*

(5.) Coming now to ANIMAL PHYSIOLOGY, we find that the animal kingdom is distributed by naturalists according to external marks, the radiata having their parts arranged around a common centre, the inollusca being enclosed wholly or partially in a soft envelope, the articulata being jointed, and the vertebrata possessing a spinal column. In regard to vertebrata, the class falling nmst frequently under human inspection, it is instructive to observe that their subdivisions into fishes, reptiles, birds, and mammals, are made agreeably to visible and tangible characteristics. Conformity of structure., indeed, has been the leading principle of classification in zoology from the time of Aristotle to the present day.

The regular forms in tho inorganic world are commonly bounded by straight lines, but an we rise to the organic world,

% Tho author developed these views before tho British Association in September 1854. Each of the sets of spirals on the cone and brunch in made up of several members or threads. The number of threads in any given net of spirals is always one or other of tho following,— 1, 2, «I, C, 8, lit, iil, «i4, in which scale every HUO-cceding nimnber is made up by tho addition of the two preceding; thin holds iruo of all the conifeno. The numbers of the threads of the two opposite sots of spirals arc always contiguous ones in tho above neale; thus, if tho number of the one spiral be 5, that of the other must lie ,'i or 8. The number of^breads in the spirals seems to be definite! for every species. 'I'lus number of threads in the two .spiral« of the branch is often a stage lower Hum in those of th» rone ; thus in piueu the numbers of the branch are commonly 3 and C, find *In* the com; *r> :md 8,